



**ASW (WIRELINE SET)
RETRIEVABLE BRIDGE PLUG
RIGHT-HAND SET / RIGHT-HAND RELEASE
5-1/2" W/ 2-3/8" EUE (PIN DOWN)**

Manual No:
DL-724-5500-387

Revision: **G**

Revision Date:
06/10/2016

Authored by: B.Mathis

Approved by: D.Hushbeck

A) DESCRIPTION

The ASW Retrievable Bridge Plug is a high pressure plug for multiple zone and selective single zone operations such as acidizing, fracturing, cementing and testing. It features a large internal by-pass to reduce swabbing when running and retrieving. The by-pass closes during the setting of the plug and opens prior to releasing the upper slips to equalize pressure when unsetting. The by-pass is located directly below the upper slips to help wash debris when the by-pass is open.

This tool is a version of the AS Retrievable Bridge Plug that allows the plug to be set on wireline or with a hydraulic setting tool, and retrieved with tubing. It cannot be reset in the wellbore once it is unset, but it can be pulled, re-dressed and run again. A Wireline Adapter Kit is required for this version.

CAUTION₁: When running this tool with a packer, make sure the J-slots in the plug, running/ retrieving tool, and packer are all compatible

NOTE₁: This packer requires at least a 30 second burn on the wireline setting tool to ensure a proper set. A burn time less than 30 seconds may shear the setting tool off of the packer before fully setting the packer.

B) RELATED TOOLS (sold separately)

B-1) 5-1/2" Wireline Adapter Kit (WLAK) (P/N 72355WLAK) - refer to Technical Manual *DL-723-5500-547*.

B-2) 5-1/2" X 2-3/8" Spring Loaded Retrieving Tool (P/N 57755) – refer to Technical Manual *DL-577-5500-323*.

C) SPECIFICATION GUIDE

CASING			GAGE OD (INCHES)	THREAD CONNECTION PIN DOWN	PART NUMBER
SIZE (INCHES)	WEIGHT (LBS/FT)	RECOMMENDED HOLE SIZE (INCHES)			
5-1/2	13.0 – 20.0	4.778 – 5.044	4.625	2-3/8 EUE	72455RR 72455RRH ¹ 72455RRV ²
	20.0 – 23.0	4.670 – 4.778	4.500	2-3/8 EUE	72457RR 72457RRH ¹ 72457RRV ²

Elastomer Trim Options: ¹HSN, ²Viton

NOTE₂: Tool listed is right-hand set / right-hand release. Additional J-slot designs are available.

DIFFERENTIAL PRESSURE (MAX)	HANGING WEIGHT ON SET TOOL (MAX)	TENSILE LOAD THRU TOOL (MAX)	TORQUE THRU TOOL (MAX)
10,000 PSI	96,000 LBS [†]	96,000 LBS	2,000 FT-LBS

[†]Casing must be cemented for this load rating.

D & L OIL TOOLS
P.O. BOX 52220 TULSA, OK 74152
PHONE: (800) 441-3504 www.dloilttools.com



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D) PRE-INSTALLATION INSPECTION PROCEDURES

CAUTION₂: D&L ships tool connections made-up **HAND TIGHT**—labeled with hand-tight tape on the tool (Fig. 1)—unless stated otherwise. Tighten/torque all connections properly before operating tool.

Fig. 1



GENERAL THREAD CONNECTION TORQUE RECOMMENDATIONS			
STUB ACME / ACME THREADS	INTERNAL TAPERED TUBING THREADS		PREMIUM THREADS
	UP TO 2-3/8"	GREATER THAN 2-3/8"	
600 – 800 FT-LBS	600 – 800 FT-LBS	800 – 1,200 FT-LBS	Consult thread manufacturer's recommendations.

GENERAL SCREW TORQUE RECOMMENDATIONS									
SCREW SIZE (INCHES)	#6	#8	#10	1/4	5/16	3/8	7/16	1/2	5/8 and larger
TORQUE RANGE (INCH-POUNDS)	5 – 8	10 – 15	18 – 25	25 – 40	50 – 80	90 – 135	160 – 210	250 – 330	450 - 650

Before first use, D&L recommends disassembly and inspection of the tool unless stated otherwise. Ensure parts have not been damaged during shipping. Replace damaged parts with D&L replacement parts. Contact D&L sales for replacement part information.

Re-assemble the tool after inspection. Install parts in the correct order and orientation. Properly tighten connections.

Before re-using the tool, D&L recommends disassembly and inspection of the tool. Clean parts and ensure parts are in good working condition. Replace worn or damaged parts with D&L replacement parts.

When redressing the tool, D&L recommends replacement of all seals, elements, o-rings, shear screws, etc. Contact D&L sales for redress kit and/or other replacement part information.

E) SETTING PROCEDURE

CAUTION₃: Do not run the tool without properly tightening connections. Running the tool with loose connections may damage the tool and cause malfunction.

CAUTION₄: Lift the AS Retrievable Bridge Plug by placing the sling or chain just below the pulling head. **DO NOT** lift the bridge plug by the upper slip body assembly (Fig. 2).

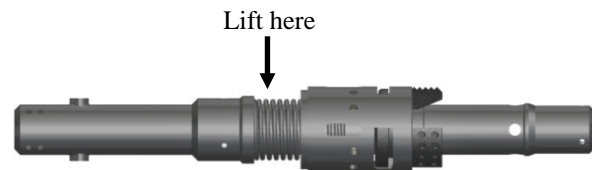


Fig. 2

The 5-1/2" ASW Retrievable Bridge Plug is attached to a wireline setting tool (Size #20 Baker E-4 Wireline Setting Assembly or similar) via a Wireline Adapter Kit (WLAK). When attaching the inner adapter to the ASW Bridge Plug, Driv-Lok pins should be used to ensure proper setting.

Once the setting tool and ASW Retrievable Bridge Plug are run to setting depth, the setting tool is activated. The ASW Retrievable Bridge Plug will set and the adapter kit will shear loose.

NOTE₁: This packer requires at least a 30 second burn on the wireline setting tool to ensure a proper set. A burn time less than 30 seconds may shear the setting tool off of the packer before fully setting the packer.

When set with a hydraulic setting tool, the ASW Retrievable Bridge Plug is also attached with an adapter kit to the setting tool. Pressure, or pressure and tension, are used to set the plug and shear loose.



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F) RELEASING PROCEDURES

Lower work string until the retrieving tool automatically latches to the ASW Retrievable Bridge Plug. Sand may be washed from the upper slip by circulating through the upper portion of the plug. Slack off weight, hold right-hand torque pick up to open the by-pass valve, and wait until differential pressure has equalized. Continue upward movement to release upper slips, relax packing elements and re-latch. The tool may now be removed or re-located.

F-1) EMERGENCY RELEASE

If the plug will not release conventionally, slack off re-set, then pick straight up to shear J-pins and release the plug (standard J-pins will shear at 40,000 lbs each – refer to Parts List for J-pins with other shear values) Once the J-pins are sheared, the tool cannot be moved down hole.

NOTE₃: Contact D&L Engineering if running tool equipped with lower than standard value shear J-pins.

G) STORAGE RECOMMENDATIONS

When preparing the tool for storage, follow the Pre-Installation Inspection Procedures. Re-assemble the tool with connections hand-tight only and in running position if applicable. Elements should be in a relaxed state—free from tension, compression, and other stresses that could cause deformation.

Store the tool, if possible, in an enclosed, temperature and humidity controlled environment. Avoid excessively high temperatures over long periods of time. Shield elastomeric parts from ultraviolet light sources. Keep tool dry and protected from condensation. Do not store in contact with or near volatile or corrosive chemicals. Do not store near ozone generating equipment or operations such as welding.

H) PRESSURE AFFECTED AREA GUIDE

When set downhole, the packer mandrel is subjected to a force created by differential pressure above or below the packer that acts on the pressure affected area (i.e., the piston effect). Depending on the tubing size and weight and the seal area of the packer the force created by differential pressure acts upwards or downwards on the packer mandrel. An upward force, designated as a negative (-) value, acts to push the packer mandrel up hole and must be accounted for when releasing the packer. A downward force, designated as a positive value, acts to push the packer mandrel down hole and must be accounted for when releasing the packer. Other factors (e.g., tubing movement due to temperature change) must be considered separately to determine all the forces acting on the packer.

PACKER SIZE (INCHES)	PRESSURE (SQ. INCHES)	
	ABOVE	BELOW
5-1/2	2.895 (DOWN)	-2.895 (UP)

Example: Consider a 5-1/2" ASW Bridge Plug set on tubing with a differential pressure of 3,000 psi in the annulus around the tubing above the packer. What is the force acting on the seal area of the mandrel?

To calculate the force (lbs) acting on the seal area of the mandrel, refer to the Pressure Affected Area Guide for a 5-1/2" ASW Bridge Plug. In this example, the differential pressure from above the packer acts on the seal area of the packer mandrel across a pressure affected area of 2.895in². Multiplying the differential pressure (3,000 psi) by the pressure affected area (2.895 in²) results in a force of 8,685 lbs. The piston effect on the packer mandrel is a downward force of 8,685 lbs.



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I) ELASTOMER TRIM TEMPERATURE GUIDE

NITRILE (STD)			
TEMPERATURE RANGE (F°)	DUROMETER		
	END	MIDDLE	END
70° - 125°	80	70	80
125° - 250°	90	70	90
150° - 250°	90	80	90
250° +	Contact D&L Sales		

RUBBER TYPE	TEMPERATURE RANGE
NITRILE	70° - 250°F
HSN (HNBR)	70° - 300°F
VITON	100° - 350°F

J) RECOMMENDED HAND TOOLS

- VISE
- GLOVES
- ALLEN WRENCHES
- TAPE MEASURE
- O-RING PICK
- BAR
 - 1/2-INCH
 - 3/4-INCH
- PAINT BRUSH, 2-INCH
- PIPE WRENCH, 3-FT (2 EA)
- "CHEATER" PIPE, 4-FT LONG
- ADJUSTABLE WRENCH, 12-INCH
- CORDLESS DRILL, 18V
- SNAP RING SPREADER PLIERS
- ALIGNING PUNCH
- SCREWDRIVER SET, FLAT-TIPPED
- SOCKET SETS
 - 3/8-INCH DRIVE
 - 1/2-INCH DRIVE
- HAMMERS
 - SLEDGE
 - BALL PEEN
 - DEAD BLOW

K) DISASSEMBLY

K-1) Clamp upper cone (9) in vise.

K-1.1) Rotate and move J-slot mandrel (20) upwards to move J-pins (3) to lower landing in slot on J-slot mandrel (20).

CAUTION₅: Compression spring (4) is compressed with spring tension against upper slip body assembly.

K-1.2) Unscrew and remove crossover (28) from J-slot mandrel (20).

K-1.3) Unscrew and remove set screws (32) from lower end of body extension (35).

K-1.4) Unscrew and remove shear screws (22) from body extension (35).

K-1.5) Unscrew and separate body extension (35) from J-pin body (23) (**NOTE₄:** Left-hand threads).

NOTE₅: Drag block body assembly must be free to rotate.

K-1.6) Remove J-pins (3) from J-pin body (23).

K-1.7) Remove J-pin body (23) from J-slot mandrel (20).

K-1.8) Unscrew and remove set screws (32) from upper end of body extension (35).

K-1.9) Unscrew and remove body extension (35) from drag block body (18) (**NOTE₄:** Left-hand threads).

K-1.10) Unscrew and remove rubber mandrel cap (19) from lower slip sleeve (27).

K-1.11) Wedge slips outward (if needed). Remove drag block body assembly from lower slip sleeve (27) and disassemble:

K-1.11.1) Remove drag block retainer (21) from drag block body (18).

K-1.11.2) Remove wedges (if needed). Remove lower slips (17) and lower slip springs (25) from drag block body (18).

K-1.12) Unscrew and remove set screws (31) from lower slip sleeve (27).

K-1.13) Unscrew and remove lower slip sleeve (27) from rubber mandrel (11).



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K) DISASSEMBLY (cont'd)

- K-1.14) Unscrew and remove set screws (33) from J-slot mandrel (20).
- K-1.15) Unscrew and remove J-slot mandrel (20) from sealing mandrel (34).
- K-1.16) Unscrew rubber mandrel (11) from center coupling (10).
- K-1.17) Remove rubber mandrel assembly and disassemble:
 - K-1.17.1) Remove elements (13, 14), rubber spacers (12), and lower cone (16) from rubber mandrel (11).
- K-1.18) Unscrew and remove gage ring (29) from center coupling (10).
- K-1.19) Moving to the upper end of the tool, unscrew and remove set screws (32) from pulling head (1).
- K-1.20) Unscrew and remove pulling head (1) from upper mandrel (2).

CAUTION₅: Compression spring (4) is compressed with spring tension against upper slip body assembly.

 - K-1.20.1) Unscrew and remove spring retaining ring (15) from pulling head (1).
- K-1.21) Remove compression spring (4) from upper mandrel (2).
- K-1.22) Unscrew and remove shear screws (22) from upper slip body (6).
- K-1.23) Wedge slips outward (if needed). Remove upper slip body assembly from upper mandrel (2) and disassemble:
 - K-1.23.1) Remove wedges (if needed). Remove releasing slip (7), upper slips (8) and upper slip springs (26) from upper slip body (6).
- K-1.24) Unscrew and remove set screws (33) from upper mandrel (2). Move mandrel assembly up and clear of upper cone as necessary to access set screws (33).
- K-1.25) Unscrew and remove upper mandrel (2) from sealing mandrel (34).
- K-1.26) Remove plug (5) from sealing mandrel (34).
 - K-1.26.1) Remove o-ring (37) from plug (5).
- K-1.27) Remove sealing mandrel (34) from center coupling (10).
- K-1.28) Unscrew and remove set screws (33) from center coupling (10).
- K-1.29) Unscrew and remove center coupling (10) from upper cone (9).
 - K-1.29.1) Remove seal retaining ring (30) from center coupling (10) or upper cone (9).
 - K-1.29.2) Remove bonded seal (24) and o-ring (38) from center coupling (10).
 - K-1.29.2.1) Remove o-ring (36) from bonded seal (24).
- K-2) Unclamp and remove upper cone (9) from vise.
 - K-2.1.1) Remove o-ring (39) and bonded seal (24) from upper cone (9).
 - K-2.1.1.1) Remove o-ring (36) from bonded seal (24).

NOTE₆: To redress tool assembly, follow disassembly instructions. It is recommended by D&L Oil Tools to replace all bonded seals, elements, o-rings, shear screws, etc. when redressing tool.

L) ASSEMBLY

NOTE₇: Clean and inspect all parts. Replace all worn and damaged parts. Install parts in proper order, orientation and tighten/torque all connections properly.

CAUTION₆: To ensure tool operates properly, install o-rings in o-ring grooves **NOT** thread reliefs (Fig. 3).

- L-1) Install o-ring (39) in o-ring groove in upper cone (9).
- L-2) Install o-rings (36) in o-ring grooves in bonded seals (24).
- L-3) Install bonded seal (24) and retaining ring (30) into upper cone (9).

CAUTION₇: Do not rip or tear o-ring during installation.

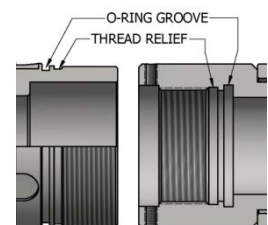


Fig. 3



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L) ASSEMBLY (cont'd)

L-4) Clamp upper cone (9) in vise.

L-4.1) Install o-ring (38) in o-ring groove in center coupling (10).

L-4.2) Install bonded seal (24) in center coupling (10).

CAUTION₇: Do not rip or tear o-ring during installation.

L-4.3) Screw center coupling (10) onto upper cone (9).

L-4.4) Screw set screws (33) into center coupling (10).

L-4.5) Install sealing mandrel (34) into center coupling (10).

CAUTION₈: Do not damage bonded seals during installation.

L-4.6) Install o-ring (37) in o-ring groove in plug (5).

L-4.7) Install plug (5) into sealing mandrel (34).

CAUTION₇: Do not rip or tear o-ring during installation.

L-4.8) Screw upper mandrel (2) onto sealing mandrel (34).

L-4.9) Screw set screws (33) into upper mandrel (2).

L-4.10) Assemble upper slip body assembly and install:

L-4.10.1) Install upper slip springs (26), releasing slip (7), and upper slips (8) into upper slip body (6). Wedge slips outward.

NOTE₈: Install two (2ea) springs per slip (Fig. 4).

L-4.10.2) Install upper slip body assembly onto upper mandrel (2). Remove wedges.

L-4.11) Align threaded holes in upper slip body (6) with pocket holes in upper mandrel (2). Screw shear screws (22) into upper slip body (6). Tighten until shear screws (22) make contact with upper mandrel (2). Back shear screws (22) out 1/4 turn.

L-4.12) Install compression spring (4) onto upper mandrel (2).

L-4.13) Screw spring retaining ring (15) onto pulling head (1).

L-4.14) Screw pulling head (1) onto upper mandrel (2).

CAUTION₅: Compression spring (4) will be compressed with spring tension against upper slip body assembly.

L-4.15) Screw set screws (32) into pulling head (1).

L-4.16) Moving to lower end of tool, screw gage ring (29) onto center coupling (10).

L-4.17) Assemble rubber mandrel assembly and install:

L-4.17.1) Install lower cone (16), elements (13, 14), and rubber spacers (12) onto rubber mandrel (11).

L-4.17.2) Install rubber mandrel assembly onto sealing mandrel (34).

L-4.17.3) Screw rubber mandrel (11) into center coupling (10).

CAUTION₇: Do not rip or tear o-ring during installation.

L-4.18) Screw J-slot mandrel (20) onto sealing mandrel (34).

L-4.19) Screw set screws (33) into J-slot mandrel (20).

L-4.20) Screw lower slip sleeve (27) onto rubber mandrel (11).

L-4.21) Screw set screws (31) into lower slip sleeve (32).

L-4.22) Assemble drag block body assembly and install:

L-4.22.1) Install lower slips (17) and lower slip springs (25) into drag block body (18). Wedge slips outward.

NOTE₉: Install two (2ea) springs per slip (Fig. 5).

L-4.22.2) Install drag block retainer (21) onto drag block body (18).



Fig. 4



Fig. 5



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L) ASSEMBLY (cont'd)

- L-4.22.3) Install drag block body assembly onto lower slip sleeve (27). Remove wedges.
- L-4.23) Screw rubber mandrel cap (19) onto lower slip sleeve (27).
- L-4.24) Screw body extension (35) onto drag block body (18) (**NOTE₄**: Left-hand threads).
- L-4.25) Screw set screws (32) into body extension (35).
- L-4.26) Move body extension (35) and drag block body assembly up and out-of-the-way temporarily.
- L-4.27) Install J-pin body (23) onto J-slot mandrel (20).
- L-4.28) Align holes in J-pin body (23) with lower landing in slot in J-slot mandrel (20). Install J-pins (3) into J-pin body (23) (Fig. 6).
- L-4.29) Slide drag block body assembly down and screw body extension (35) onto J-pin body (23) (**NOTE₄**: Left-hand threads).
- NOTE₅**: Drag block body assembly must be free to rotate.
- L-4.30) Screw set screws (32) into body extension (35).
- L-4.31) Screw changeover sub (28) onto J-slot mandrel (20).



Fig. 6

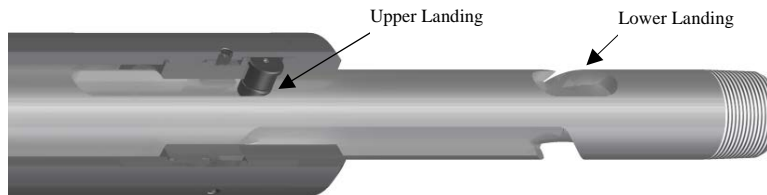


Fig. 7

- L-4.32) Rotate and move J-slot mandrel (20) downwards to move J-pins (3) to upper landing in slot on J-slot mandrel (20) (Fig. 7).
- L-4.33) Align threaded holes in body extension (35) with pocket holes in rubber mandrel cap (19). Screw shear screws (22) into body extension (35). Tighten until shear screws (22) make contact with rubber mandrel cap (19). Back shear screws (22) out 1/4 turn.

L-5) Unclamp upper cone (9) from vise and remove assembled tool.

M) PARTS LIST

ITEM	QTY	DESCRIPTION	MATERIAL	13.0 - 20.0# P/N 72455RR	20.0 - 23.0# P/N 72457RR
1	1	PULLING HEAD	P-110	72455710	
2	1	UPPER MANDREL	P-110	72455211	
3	2	J-PIN NOTE₁₀ : Shear value is stamped on J-pin.	DLMS110	72555870-25 (25,000#)	
				72555870-30 (30,000#)	
				72555870-35 (35,000#)	
				72555870-40 (STD 40,000#)	
4	1	COMPRESSION SPRING	CHROME VANADIUM	72555920	
5	1	PLUG	DLMS110	72555216	
6	1	UPPER SLIP BODY	P-110	72455320	



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M) PARTS LIST (cont'd)

ITEM	QTY	DESCRIPTION	MATERIAL	13.0 – 20.0# P/N 72455RR	20.0 – 23.0# P/N 72457RR
7	1	RELEASING SLIP	DLMS110	60055125	
8	2	UPPER SLIP W/CARBIDE	DLMS110	60055115C	
9	1	UPPER CONE	DLMS110	72555410	
10	1	CENTER COUPLING	DLMS110	72555620	
11	1	RUBBER MANDREL	DLMS110	72555220	
12	2	RUBBER SPACER	-	72055851	72057851
13	1	ELEMENT	70 DURO NITRILE	72055511	72057511
14	2	ELEMENT	90 DURO NITRILE	72055513	72057513
15	1	SPRING RETAINING RING	DLMS60	72055820	
16	1	LOWER CONE	DLMS110	72055420	72057420
17	4	LOWER SLIP W/CARBIDE	DLMS110	60055135C	
18	1	DRAG BLOCK BODY	DLMS60	60055335	60057335
19	1	RUBBER MANDREL CAP	P-110	72455230	
20	1	J-SLOT MANDREL	DLMS110	72555230	
21	1	DRAG BLOCK RETAINER	DLMS60	60055910	60057910
22	16	SHEAR SCREW (2375#)	BRASS	60100990	
23	1	J-PIN BODY	DLMS110	72555875	
24	2	BONDED SEAL	90 DURO NITRILE	60040520	
25	8	LOWER SLIP SPRING	ELGILOY	7155901	
26	6	UPPER SLIP SPRING	ELGILOY	7155902	
27	1	LOWER SLIP SLEEVE	DLMS110	72555912	72557912
28	1	CROSSOVER	DLMS110	CH2375N2375EHT	
29	1	GAGE RING	-	72555830	72557830
30	1	SEAL RETAINING RING	-	72055830	
31	3	SET SCREW 1/4-20 UNC X 1/4	STEEL	SSS025C025	
32	9	SET SCREW 3/8-16 UNC X 1/2	STEEL	SSS037C050	
33	9	SET SCREW 3/8-16 UNC X 3/8	STEEL	SSS037C037	
34	1	SEALING MANDREL	DLMS110	72555215	
35	1	BODY EXTENSION	P-110	72455370	
36	2	140 O-RING	90 DURO NITRILE	90140	
37	1	211 O-RING	90 DURO NITRILE	90211	
38	1	229 O-RING	90 DURO NITRILE	90229	



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M) PARTS LIST (cont'd)

ITEM	QTY	DESCRIPTION	MATERIAL	13.0 – 20.0# P/N 72455RRR	20.0 – 23.0# P/N 72457RRR
39	1	239 O-RING	90 DURO NITRILE	90239	
40	10	DRIV-LOK PIN (4800#) 5/16 X 5/8	4140	DLP031062*	

*Refer to WLAK tech manual for placement.

REDRESS KIT (RDK)		72455050	72457050
ASSEMBLED WEIGHT		198 LBS	196 LBS

M-1) ELASTOMER TRIM OPTIONS

NOTE₁₁: For temperature range, refer to Elastomer Trim Temperature Guide.

M-1.1) HSN

ITEM	QTY	DESCRIPTION	MATERIAL	13.0 – 20.0# P/N 72455RRH	20.0 – 23.0# P/N 72457RRH
13	1	ELEMENT	70 DURO HSN	72055511H	72057511H
14	2	ELEMENT	90 DURO HSN	72055513H	72057513H
24	2	BONDED SEAL	90 DURO HSN	60040520H	
36	2	140 O-RING	90 DURO HSN	90140H	
37	1	211 O-RING	90 DURO HSN	90211H	
38	1	229 O-RING	90 DURO HSN	90229H	
39	1	239 O-RING	90 DURO HSN	90239H	

REDRESS KIT (RDK)		72455050H	72457050H
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M-1.2) VITON

ITEM	QTY	DESCRIPTION	MATERIAL	13.0 – 20.0# P/N 72455RRV	20.0 – 23.0# P/N 72457RRV
13	1	ELEMENT	70 DURO VITON	72055511V	72057511V
14	2	ELEMENT	90 DURO VITON	72055513V	72057513V
24	2	BONDED SEAL	90 DURO VITON	60040520V	
36	2	140 O-RING	90 DURO VITON	90140V	
37	1	211 O-RING	90 DURO VITON	90211V	
38	1	229 O-RING	90 DURO VITON	90229V	
39	1	239 O-RING	90 DURO VITON	90239V	

REDRESS KIT (RDK)		72455050V	72457050V
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ASW (WIRELINE SET)
RETRIEVABLE BRIDGE PLUG
RIGHT-HAND SET / RIGHT-HAND RELEASE
5-1/2" W/ 2-3/8" EUE (PIN DOWN)

Manual No:
DL-724-5500-387

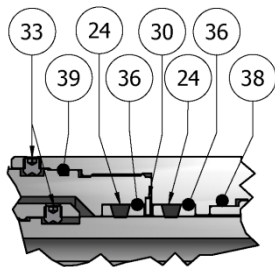
Revision: **G**

Revision Date:
06/10/2016

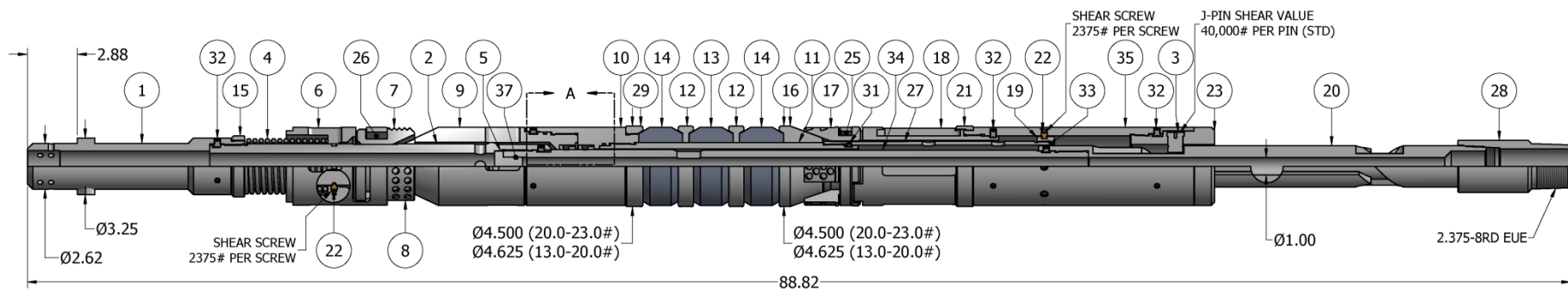
Authored by: *B.Mathis*


Approved by: *D.Hushbeck*

N) TECHNICAL ILLUSTRATION



DETAIL A



	ASW (WIRELINE SET) RETRIEVABLE BRIDGE PLUG RIGHT-HAND SET / RIGHT-HAND RELEASE 5-1/2" W/ 2-3/8" EUE (PIN DOWN)	Manual No: DL-724-5500-387
		Revision: G
		Revision Date: 06/10/2016
Authored by: <i>B.Mathis</i>		Approved by: <i>D.Hushbeck</i>

O) REVISION HISTORY

DATE	REVISION	DESCRIPTION OF CHANGES	REVISED BY	APPROVED BY
06/10/2016	G	Added General Screw Torque Recommendations, Note ₃ , Pressure Affected Area Guide	J.Anderson	K.Riggs
12/14/2015	F	Revised Elastomer Durometer Temperatures – Nitrile (90/80/90 Duro) was 250° - 300°F, Nitrile (Contact D&L Sales) was 300°F +, Rubber Type Temperature Ranges – Nitrile was 70° - 300°F, HSN was 70° - 325°F	J.Anderson	B.Oligschlaeger
10/22/2015	E	Added max. torque thru tool, max. hanging weight on set tool, max. tensile load thru tool	J.Anderson	K.Riggs
08/11/15	D	Revised Elastomer Trim Temperature Guide was Element Selection Guide, Fig. 4, Note 8, 72555870-40 as standard J-Pin in Parts List , P/N 7155902 (Qty 6) was P/N 7145902 (Qty 3), Elastomer Trim Options was Options Parts List and moved to subset of Parts List;	S. McEntire	T. Myerley
10/07/14	C	Added related tools, pre-installation inspection and storage procedures, 30-second burn caution.	J. Anderson	J. McArthur
04/03/13	B	Removed setting force guide, setting kit section; Added reference to tech manual <i>DL-723-5500-547</i> , P/N DLP031062, HSN and Viton options (72455RRH, 72455RRV, 72457RRH, 72457RRV), element selection guide, recommended hand tools, revision history.	J. Anderson	K. Plunkett